

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/045160 A2

(51) International Patent Classification: H04L 12/56

(21) International Application Number:
PCT/GB2003/004854

(22) International Filing Date:
11 November 2003 (11.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0226249.1 11 November 2002 (11.11.2002) GB

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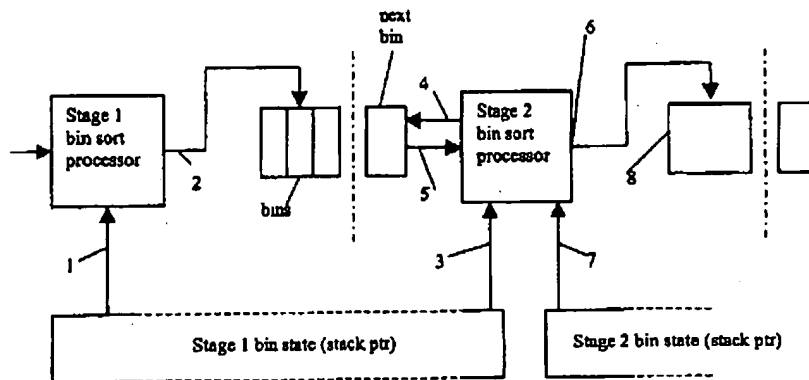
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(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO,
CR, CU, CZ (utility model), CZ, DE (utility model), DE,
DK (utility model), DK, DM, DZ, EC, EE (utility model),
EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: DATA PACKET HANDLING IN COMPUTER OR COMMUNICATION SYSTEMS



(57) Abstract: The ordering of packet flows, comprising sequences of data packets, in a communication or computer system, is performed by assigning an exit number to each packet; queuing the packets in buffer means; and outputting the queued packets in a predetermined order according to an order list determined by the exit numbers assigned to each packet before it was queued. The exit number information is preferably assigned to packet records, which are queued in a separate buffer means to the packets, the records being of fixed length and shorter than the data portions. The packet record buffer means comprise groups of bins, each bin containing a range of exit numbers, the bins for higher exit number packet records having a larger range than bins for lower exit number packet records. Lower exit number packet records in a bin are subdivided into a plurality of bins, each containing packet records corresponding to a smaller range of exit numbers. Secondary bins may be created to temporarily store records assigned to a bin that is currently being emptied. The bins may be filled by means of a parallel processor, preferably a SIMD array processor.

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